

# Artificial intelligence and Internet of Things for sustainable healthcare system

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## ABSTRACT

Recent developments in the Internet of Things (IoT), cloud computing, and artificial intelligence (AI) have transformed traditional healthcare systems into intelligent healthcare. Medical services can be improved by incorporating key technologies such as IoT and AI. The fusion of IoT and AI opens up new possibilities for healthcare. From this perspective, the current article presents a new AI and IoT convergence-based disease diagnostic model for intelligent healthcare systems. The main purpose of this article is to use AI and IoT convergence technologies to create disease diagnostic models for heart disease and diabetes. The model presented has several phases, including data collection.

## I. Introduction

In recent years, the healthcare sector has begun to use information technology to develop modern applications and improve diagnostic procedures and treatments. Advanced technology and scientific theory are the main entities that generate vast amounts of digital data. Advanced clinical applications are the idea of recently developed information technology. In addition, advanced health care is expected to be a simple and elegant multitasking application.

These changes are incorporated as clinical model extensions (from disease-based to patient-based care), informatization development changes (from medical data to regional medical data),

clinical management extension (general management to personal management), and prevention and treatment modifications (shifting of focus from disease treatment to preventive medical system)[1]. As a result, the following changes focus on meeting the basic needs of individuals to improve their health literacy. This will improve your knowledge of healthcare services and suggest future uses of intelligent healthcare. Physicians, patients, clinical and research institutes, and other stakeholders embrace advanced medical services. Multiple aspects such as disease prevention and monitoring, prognosis and treatment, clinical management, health decision making, and medical research need to be considered. Mobile internet, cloud computing (CC), big data, 5G systems, microelectronics and artificial intelligence (AI), and smart biotechnology are considered modern healthcare milestones. These methodologies are used at all stages of advanced healthcare. Wearable or portable devices, from the perspective of patients, can be used to monitor their health condition as needed. They can seek clinical advice via virtual support and remotely control their homes via remote facilities. Smart clinical

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